

FIG. 1



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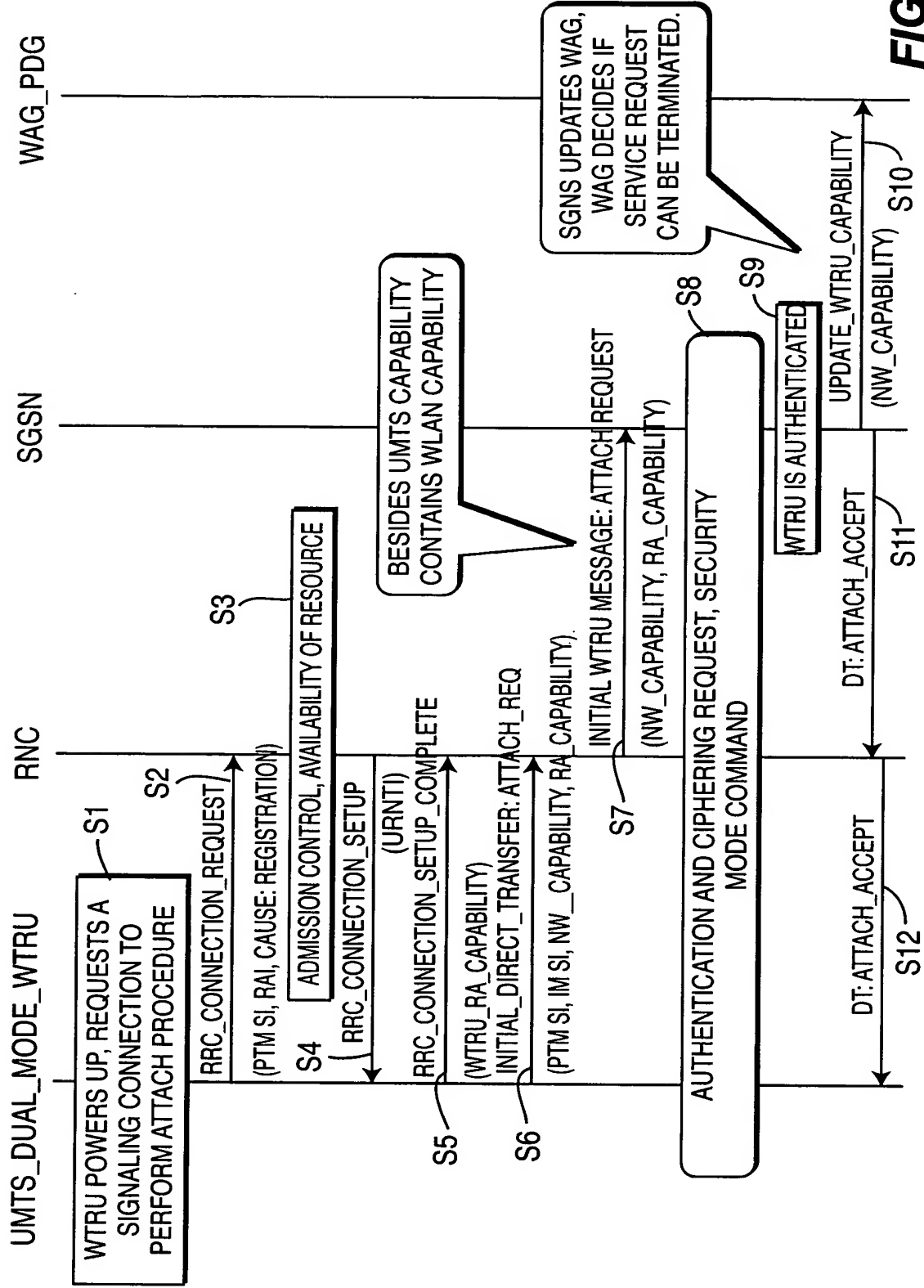
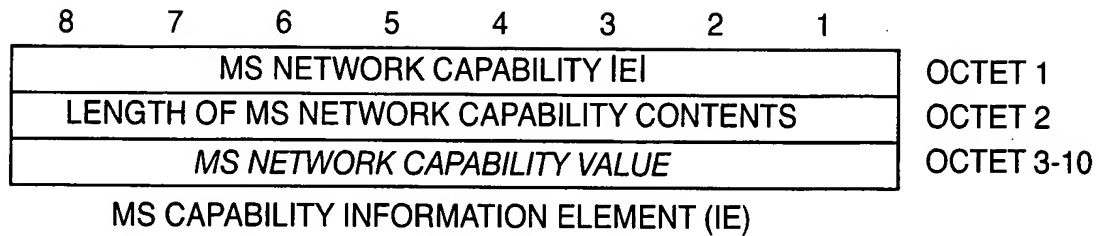
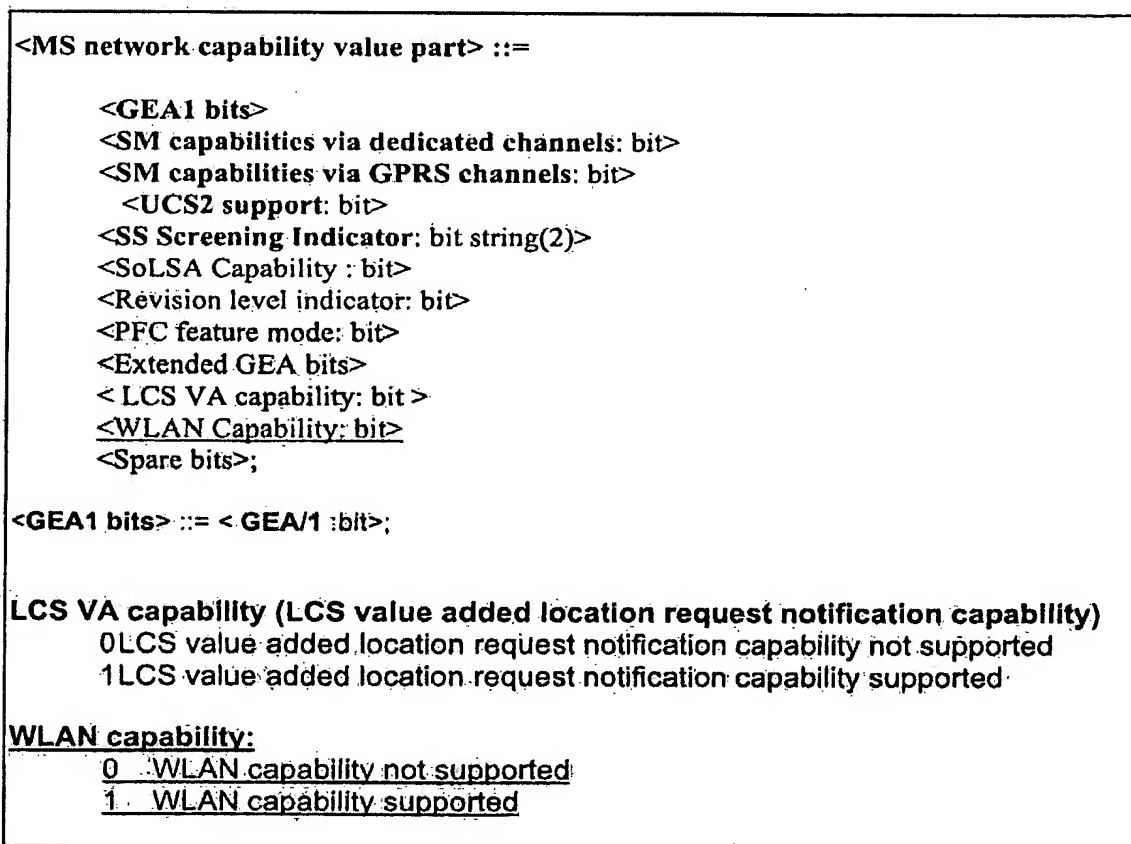


FIG. 2

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**FIG. 3**



**FIG. 4A**



## NETWORK CAPABILITY IE

<ul style="list-style-type: none"><li>• <b>EXISTING</b></li><li>• <b>MS NETWORK CAPABILITY VALUE</b> [24.008] :=&lt;GEA1 BITS&gt;<ol style="list-style-type: none"><li>1. &lt;SM CAPABILITIES VIA DEDICATED CHANNELS: BIT&gt;</li><li>2. &lt;SM CAPABILITIES VIA GPRS CHANNELS: BIT&gt;</li><li>3. &lt;UCS2 SUPPORT: BIT&gt;</li><li>4. &lt;SS SCREENING INDICATOR: BIT STRING(2)&gt;</li><li>5. &lt;SoLSA CAPABILITY: BIT&gt;</li><li>6. &lt;REVISION LEVEL INDICATOR: BIT&gt;</li><li>7. &lt;PFC FEATURE MODE: BIT&gt;</li><li>8. &lt;EXTENDED GEA BITS&gt;</li><li>9. &lt;LCS VA CAPABILITY: BIT&gt;</li><li>10. &lt;SPARE BITS&gt;;</li></ol></li></ul>	<ul style="list-style-type: none"><li>• <b>NEW</b></li><li>• <b>MS NETWORK CAPABILITY VALUE</b> [24.008] :=&lt;GEA1 BITS&gt;<ol style="list-style-type: none"><li>1. &lt;SM CAPABILITIES VIA DEDICATED CHANNELS: BIT&gt;</li><li>2. &lt;SM CAPABILITIES VIA GPRS CHANNELS: BIT&gt;</li><li>4. &lt;SMS CAPABILITY VIA WLAN: BITS</li><li>5. &lt;SMS (TEXT ONLY, TEXT &amp; ANIMATION), IMS, MMS, ETC.&gt;</li><li>6. &lt;UCS2 SUPPORT: BIT&gt;</li><li>7. &lt;SS SCREENING INDICATOR: BIT STRING(2)&gt;</li><li>8. &lt;SoLSA CAPABILITY: BIT&gt;</li><li>9. &lt;REVISION LEVEL INDICATOR: BIT&gt;</li></ol></li></ul>
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FIG. 4



## RADIO ACCESS CAPABILITY IE

- EXISTING

- <MS RA CAPABILITY

VALUE PART:= [24.008]

1. <ACCESS TECHNOLOGY TYPE>

2. <ACCESS CAPABILITIES : BIT>

3. <UMTS FDD RADIO ACCESS

TECHNOLOGY CAPABILITY : BIT>

- 4. <UMTS 3.84 Mcps TDD

RADIO ACCESS TECHNOLOGY

CAPABILITY : BIT>

- 5. <CDMA 2000 RADIO

ACCESS TECHNOLOGY

CAPABILITY : BIT>

- 6. <UMTS 1.28 Mcps TDD

RADIO ACCESS TECHNOLOGY

CAPABILITY : BIT>

- NEW

- <MS RA CAPABILITY VALUE

PART:= [24.008]

1. <ACCESS TECHNOLOGY TYPE>

2. <ACCESS CAPABILITIES : BIT>

3. <UMTS FDD RADIO ACCESS

TECHNOLOGY CAPABILITY : BIT>

- 4. <UMTS 3.84 Mcps TDD

RADIO ACCESS TECHNOLOGY

CAPABILITY : BIT>

- 5. < WLAN RADIO ACCESS

CAPABILITY : TERMINAL TYPE (PDA,

LAPTOP, PHONE), MEMORY SIZE,

SCREEN SIZE, PROCESSING POWER,

TECHNOLOGY VERSION (802.11,

802.15, 802.16,...ETC.), SERVICE

PROFILE (SMS (TEXT ONLY,

TEXT & ANIMATION)), MMS, IMS,

LOCATION, MBMS,...ETC.>

FIG. 5A

FIG. 5A1

FIG. 5A2

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<MS RA capability value part : < MS RA capability value part struct >>
<spare bits>** ; -- available for future enhancements

<MS RA capability value part struct> ::= --recursive structure allows any number of Access technologies
{
    {
        < Access Technology Type: bit (4) > exclude.1111
        < Access capabilities : <Access capabilities struct> > }
    |
    {
        < Access Technology Type: bit (4) == 1111 > -- structure adding Access
        technologies with same capabilities
        < Length : bit (7) > -- length in bits of Additional access technologies
        and spare bits
        { 1 < Additional access technologies: < Additional access technologies struct > > } ** 0
        <spare bits>** } }

{ 0 | 1 <MS RA capability value part struct> } ;

< Additional access technologies struct > ::=
    < Access Technology Type : bit (4) >
    < GMSK Power Class : bit (3) >
    < 8PSK Power Class : bit (2) > ;

< Access capabilities struct > ::=
    < Length : bit (7) > -- length in bits of Content and spare bits
    < Access capabilities : <Content>>
    <spare bits>** ; -- expands to the indicated length
    -- available for future enhancements

```

FIG. 5A1

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< Content > ::=
  < RF Power Capability : bit (3) >
  { 0 | 1 < A5 bits : < A5 bits > > } -- zero means that the same values apply for parameters as in the
  immediately preceding Access capabilities field within this IE
  < ES IND : bit >
  < PS : bit >
  < VGCS : bit >
  < VBS : bit >
  { 0 | 1 < Multislot capability : Multislot capability struct > } -- zero means that the same values for multislot
  parameters as given in an earlier Access capabilities field within this IE apply also here
  -- Additions in release 99
  { 0 | 1 < 8PSK Power Capability : bit(2) > } -- '1' also means 8PSK modulation capability in the uplink..
  < COMPACT Interference Measurement Capability : bit >
  < Revision Level Indicator : bit >
  < UMTS FDD Radio Access Technology Capability : bit > -- 3G RAT
  < UMTS 3.84 Mcps TDD Radio Access Technology Capability : bit > -- 3G RAT
  < CDMA 2000 Radio Access Technology Capability : bit > -- 3G RAT
  -- Additions in release 4
  < UMTS 1.28 Mcps TDD Radio Access Technology Capability : bit > -- 3G RAT
  < GERAN Feature Package 1 : bit >
  { 0 | 1 < Extended DTM GPRS Multi Slot Class : bit(2) > }
  < Extended DTM EGPRS Multi Slot Class : bit(2) > }
  < Modulation based multislot class support : bit >
  -- Additions in release 5
  { 0 | 1 < High Multislot Capability : bit(2) > }
  < GERAN In Mode Capability : bit >
  { 0 | 1 < GMSK_MULTISLOT_POWER_PROFILE : bit (2) >
  < 8-PSK_MULTISLOT_POWER_PROFILE : bit (2) > }
  -- Additions in release 6
  < WLAN 802.xx Radio Access Technology Capability : bit(3) >

```

FIG. 5A2

**DTM GPRS Multi Slot Class (2 bit field)**

This field indicates the DTM GPRS multislot capabilities of the MS. It is coded as follows:

Bits

2:1

0 0	Unused. If received, the network shall interpret this as '01'
0 1	Multislot class 5 supported
1 0	Multislot class 9 supported
1 1	Multislot class 11 supported

.....

**UMTS FDD Radio Access Technology Capability (1 bit field)**

Bit

0	UMTS FDD not supported
1	UMTS FDD supported

**UMTS 3.84 Mcps TDD Radio Access Technology Capability (1 bit field)**

Bit

0	UMTS 3.84 Mcps TDD not supported
1	UMTS 3.84 Mcps TDD supported

**CDMA 2000 Radio Access Technology Capability (1 bit field)**

Bit

0	CDMA 2000 not supported
1	CDMA 2000 supported

**UMTS 1.28 Mcps TDD Radio Access Technology Capability (1 bit field)**

Bit

0	UMTS 1.28 Mcps TDD not supported
1	UMTS 1.28 Mcps TDD supported

**WLAN 802 Radio Access Technology Capability (3 bit field)**

Bits

000	WLAN 802.xx not supported
001	WLAN 802.11b supported
010	WLAN 802.11a supported
011	WLAN 802.16 supported

**GERAN Feature Package 1 (1 bit field)**

This field indicates whether the MS supports the GERAN Feature Package 1 (see 3GPP TS 44.060). It is coded as follows:

0	GERAN feature package 1 not supported.
1	GERAN feature package 1 supported.

**FIG. 5B**